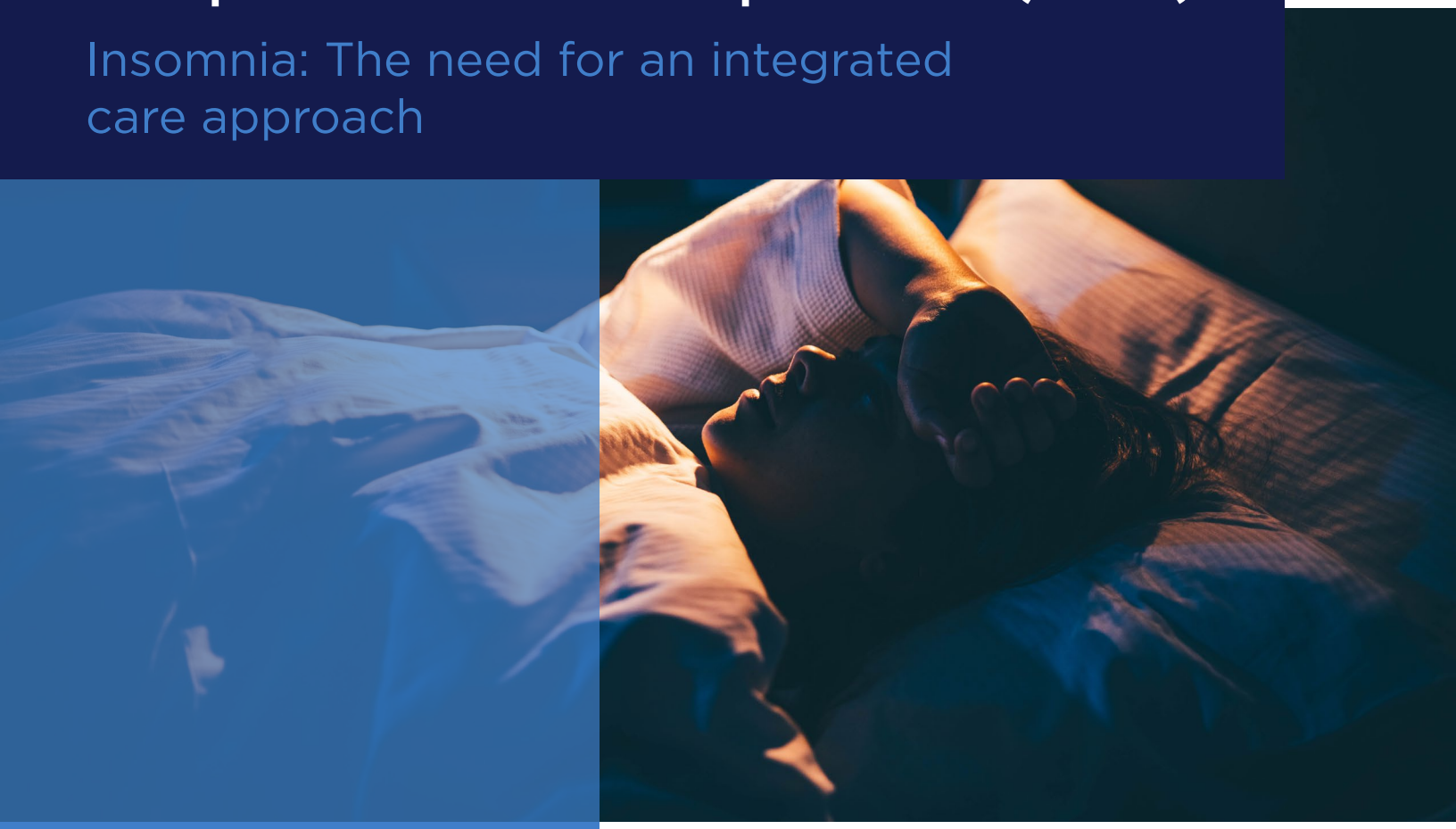
RISK strategies CONSULTING

WHITE PAPER

In the Fight Against Chronic Disease, Sleep is the Hidden Gap in Care (Part 2)

Insomnia: The need for an integrated care approach



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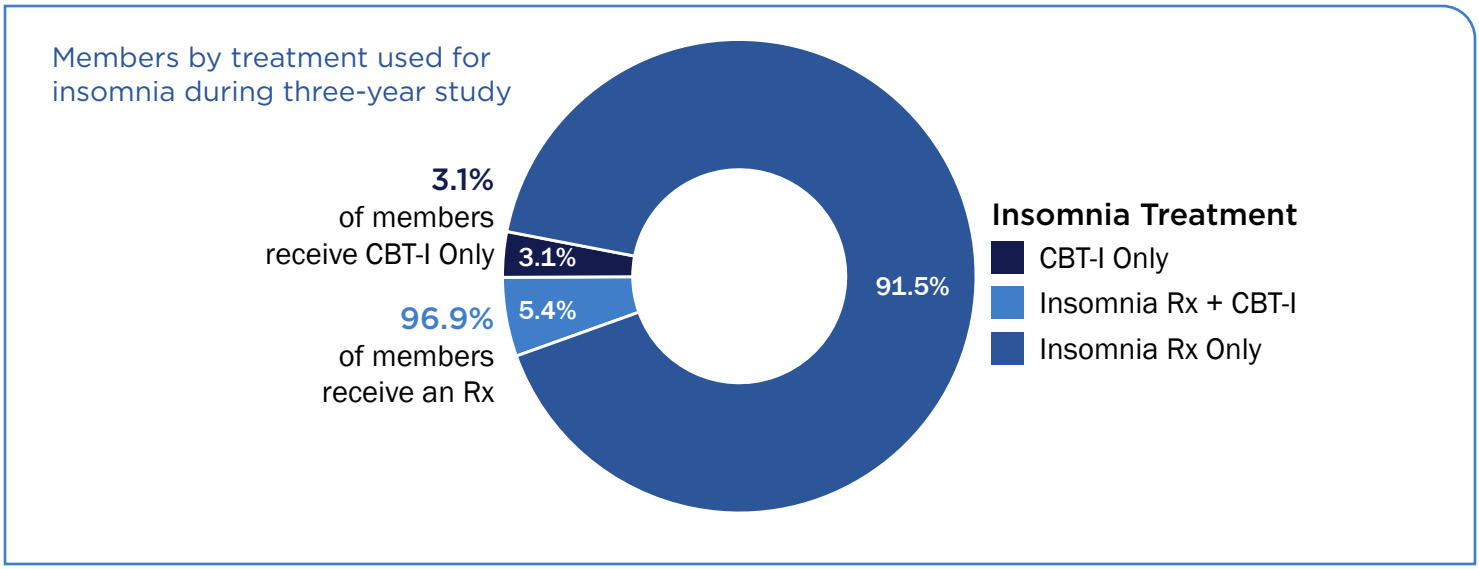
Executive Summary

Approximately 10% to 15%[1] of the general population is afflicted with chronic insomnia and, like other sleep disorders, chronic insomnia co-occurs with other chronic conditions resulting in a costly comorbidity burden and an acceleration of poor health outcomes.

In order for plan sponsors to significantly improve the health outcomes of their population suffering from these chronic conditions, they need to adopt a comprehensive sleep care management program to ensure that members are appropriately diagnosed and treated for chronic insomnia. With proper support and care oversight, members can move to better health and quality of life (QOL). Our study finds that inappropriate use of prescription medications, in lieu of evidenced-based first-line treatment — cognitive behavioral therapy for insomnia (CBT-I) — poses a substantial health and safety risk for plan members and plan sponsors alike.

1. In our previous white paper, *In the Fight Against Chronic Disease, Sleep is the Hidden Gap in Care (Part 1)*, we identified sleep as a hidden but foundational gap in care that needs attention. Our study identified sleep apnea and insomnia as primary conditions impacting the health of those suffering from chronic conditions. With regard to sleep apnea, our study demonstrated two significant gaps in care — [i] two-thirds of obstructive sleep apnea (OSA) cases are undiagnosed and untreated, and [ii] few people who are diagnosed with OSA subsequently adopt, adhere, and persist to continuous positive airway pressure (CPAP) therapy.

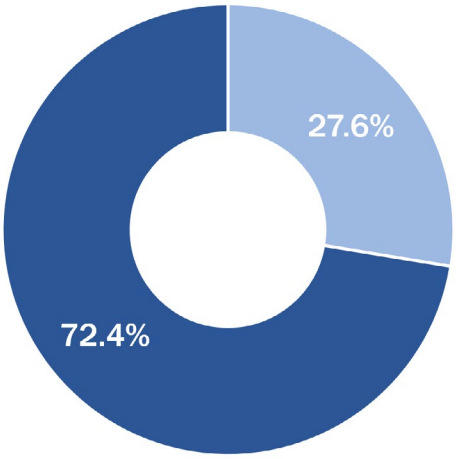
   With regard to insomnia, our current study finds a significant lack of compliance with evidence-based guidelines, leading to inappropriate overutilization of prescription medications, the majority of which are controlled substances — which have significant potential health and safety issues for both members and employers. While CBT-I is the first line evidenced-based treatment for chronic insomnia because it treats the root cause of insomnia and leads to remission, our study found that only 53.4% of patients with insomnia are prescribed treatment. Of patients who are prescribed treatment, 91.5% of those are treated with prescription medications only — which merely treat the symptoms of insomnia — and not CBT-I.



2. Further, our study found that two classes of drugs — benzodiazepines and Z-drugs, both controlled substances — were being used by 72.4% of members with insomnia using prescription medication for treatment annually. Short-term side effects from these medications include dizziness, confusion, drowsiness, memory loss, slurred speech, muscle weakness, and loss of coordination. Long-term side effects include physical dependence, problems learning or concentrating, anxiety and depression, irritability, paranoia, and aggression.[2–5] A major drawback of benzodiazepines and Z-drugs is their potential for dependence and addiction. Prolonged use can lead to tolerance, where higher doses are needed for the same effect, increasing the risk of addiction and withdrawal symptoms upon discontinuation.

The majority of members utilizing a medication to treat insomnia are using a controlled substance

Of those with an Rx for insomnia, **72.4%** are using a controlled substance.



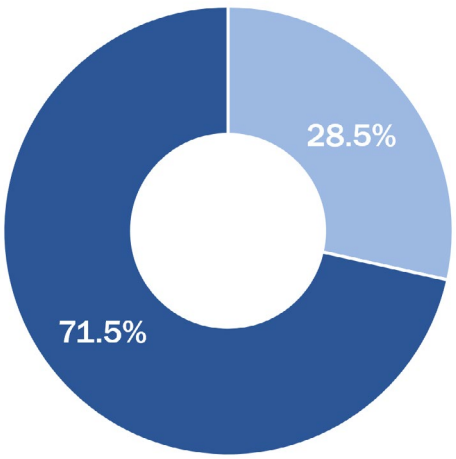
†Indicates drug is classified as a Controlled Substance

‡Other Insomnia Rx includes Heterocyclics, Dual Orexin Receptor Antagonists (DORAs), and Melatonin Receptor Agonist (Ramelteon)

3. While there is a serious risk that patients may become dependent on a benzodiazepine or a Z-drug if taken for more than four weeks, our study found that annually an average of 71.5% of patients using benzodiazepines or Z-drugs (e.g., Ambien) are using them in excess of the recommended duration posing serious health and safety risks for member and plan sponsor alike.

The majority of members utilizing a controlled substance to treat insomnia exhibit excessive use beyond guidelines

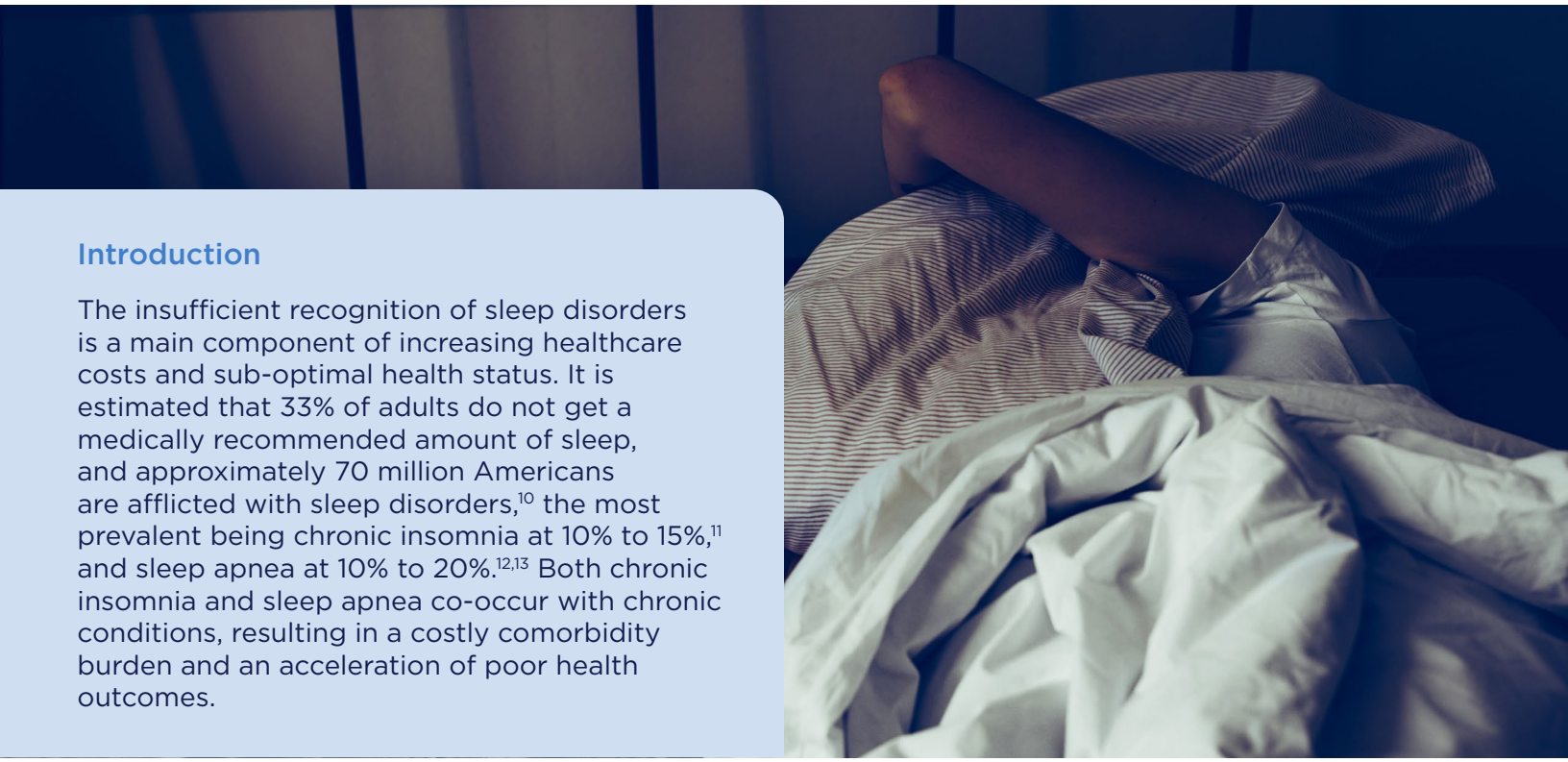
Of those using a controlled substance **71.5%** are using in excess of guidelines.



4. Our study concludes that the current care paradigm for the appropriate diagnosis and treatment of insomnia, much like sleep apnea, is broken. The overwhelming majority of patients diagnosed and treated for insomnia did not visit a sleep specialist; rather, the majority of those diagnosed with insomnia initially were seen by a primary care physician (67%) or psychiatrist (23%).[6] In addition, there is a significant shortage of providers who are certified to provide CBT-I (659 in the U.S.),[7] substantially limiting patient access to in-person or telehealth visits.

5. There are now FDA-cleared prescription digital therapeutics (e.g., Somryst) with demonstrated health outcomes, a reduction in the Insomnia Severity Index (ISI) and higher insomnia remission rates at nine weeks, six months, and one year.[8,9] As a result, plan members can now have ubiquitous access to effective first-line therapy for insomnia, and plan sponsors can substantially improve the health of members suffering from chronic conditions while reducing potential health and safety hazards associated with the use of controlled substances in their employee population.

6. In light of the recent headlines regarding the opioid crisis and its multi-faceted causes, including but not limited to, doctor prescribing and practice patterns and the pharmacy benefit managers (PBMs) who provided these prescribed medications, it is imperative that providers adhere to evidence-based guidelines. Our research indicates that it could be advantageous for payors (PBMs, health plans, plan sponsors, etc.) to consider [i] adding digital CBT-I to their formulary, [ii] including clinical intervention with physicians on new prescriptions for insomnia medications, and [iii] retrospectively reviewing drug utilization intervention with physicians for the population currently using controlled substances in excess of their recommended duration.



Introduction

The insufficient recognition of sleep disorders is a main component of increasing healthcare costs and sub-optimal health status. It is estimated that 33% of adults do not get a medically recommended amount of sleep, and approximately 70 million Americans are afflicted with sleep disorders,[10] the most prevalent being chronic insomnia at 10% to 15%,[11] and sleep apnea at 10% to 20%.[12,13] Both chronic insomnia and sleep apnea co-occur with chronic conditions, resulting in a costly comorbidity burden and an acceleration of poor health outcomes.

In our previous white paper, *In the Fight Against Chronic Disease, Sleep is the Hidden Gap in Care (Part 1)*, we demonstrated that sleep care management is a foundational missing gap in care with multifaceted consequences. We conducted original research to demonstrate the substantial health and financial outcomes of increased member adoption, adherence and persistence to therapy for sleep apnea, and proposed potential solutions for plan sponsors and health plans.

In this white paper, we continue the exploration of sleep care management as a foundational and missing gap in care, with a focus on insomnia, particularly chronic insomnia. We conducted original research to quantify a significant issue facing plan members and plan sponsors alike: the adverse health and financial consequences of the current care paradigm for the treatment of insomnia, which leads to substantial misuse and overutilization of prescription medications.

This white paper summarizes the findings from our independent analysis of the diagnosis and treatment of insomnia, with a focus on the relative utilization of CBT-I and prescription medications to treat insomnia using a large, commercial claims database comprised of longitudinal data for a population in excess of ten million lives. Individuals with diagnoses of pregnancy, organ transplant, or neoplasm in the study period were excluded from the analysis. While chronic insomnia was initially considered an ideal target, there was not an ideal way to capture this within the data sources available, so members were identified as having insomnia (defined as difficulty initiating and/or maintaining sleep with resulting daytime impairment) using medical and pharmacy claims data.

Sleep Disorder Treatment in Chronic Disease Management

1. The Importance of Sleep

Sleep is an essential human function and necessary for the proper functioning of all systems. The American Academy of Sleep Medicine (AASM)[14] recognizes that optimal sleep health is essential for overall health and well-being and includes adequate:

- Sleep duration (typically seven to nine hours per night for adults)
- Sleep quality (the ability to easily fall and stay asleep)
- Sleep timing (maintaining a consistent sleep and wake time)

It is well-recognized that sleep deprivation is an underlying contributor to the very health challenges plan sponsors are most focused upon (i.e., chronic disease — especially obesity, diabetes and cardiovascular disease, mental health disorders — and skyrocketing costs). While chronic insomnia and sleep apnea represent the most prevalent sleep disorders, sleep disorders are inextricably linked: about 35% of people with insomnia have OSA, and about 38% of those with OSA have insomnia, clinically referred to as COMISA (co-morbid insomnia and sleep apnea).[15]

2. Epidemiology of Chronic Insomnia

While insomnia disorder is defined as difficulty initiating and/or maintaining sleep with resulting daytime impairment, which may include reduced cognitive performance, fatigue, and/or mood disturbances, chronic insomnia is defined as the inability to fall asleep easily and/or to stay asleep that occurs at least three days a week for at least three months,[1] with concurrent daytime impairments. While approximately one-third of adults in the U.S. report symptoms of insomnia (acute or episodic), an estimated 10% to 15% of U.S. adults experience sufficient symptoms to meet the diagnostic criteria for chronic insomnia disorder, which manifests these difficulties at least three nights per week for at least three consecutive months.[1]

Insomnia is highly co-morbid with chronic conditions. Ongoing lack of sleep increases the risk of health conditions such as anxiety, depression, high blood pressure, heart disease, diabetes, and pain.[11]

Polychronic patients, meaning those with two or more chronic conditions, disproportionately drive underlying health risks and account for the majority of total healthcare costs. Polychronic patients are estimated to represent approximately 17% of commercial populations yet account for 48% of total healthcare costs.[16]

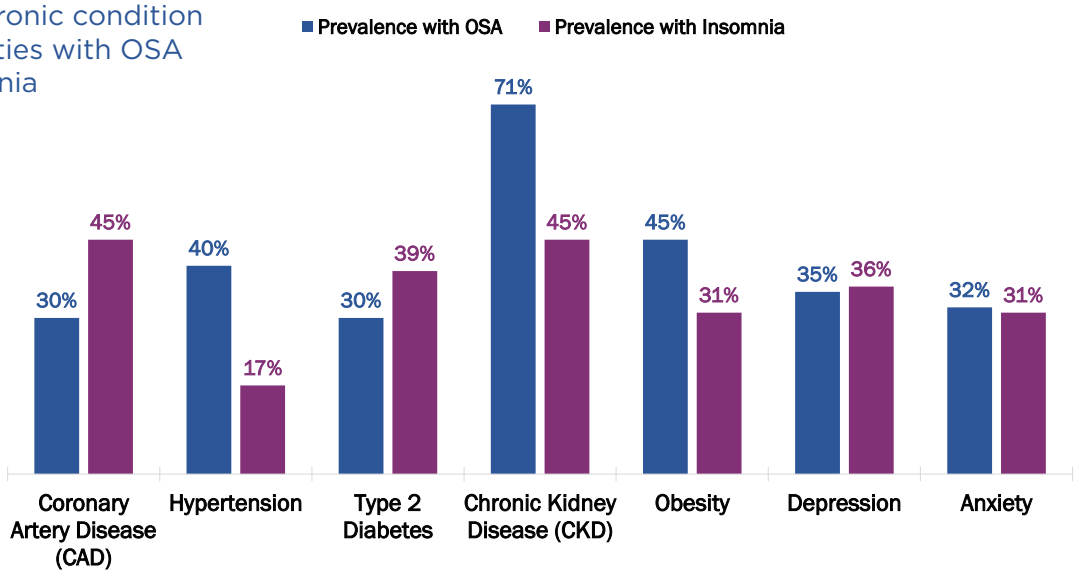
Plan cost of members by number of chronic conditions

Member Months 100,830,917 | Age Gender Adj. Allowed $43.4 B

Chronic Conditions	% of Member Months	Age-gender Adjusted	
		% of Allowed	PMPY
Exactly 0 Chronic Conditions	68.3%	29.5%	$2,232
Exactly 1 Chronic Conditions	14.7%	22.6%	$7,978
Exactly 2 Chronic Conditions	7.7%	15.5%	$10,386
Exactly 3 Chronic Conditions	4.9%	11.8%	$12,413
Exactly 4 Chronic Conditions	2.7%	8.8%	$16,895
5+ Chronic Conditions	1.8%	11.8%	$34,447
Totals:	100%	100%	$5,168

Chronic sleep impairment is highly prevalent in polychronic patients. Sleep disorders are often linked to systemic inflammation that can lead to chronic disease. In fact, insomnia prevalence in comorbid chronic conditions ranges from 17% to 45%[17-22] and obstructive sleep apnea (OSA) ranges from 30% to 70%.[23-28] Furthermore, our study showed 73% of commercial plan members suffering from insomnia have two or more chronic conditions in our three-year study period.

Rate of chronic condition comorbidities with OSA and Insomnia



Many medical conditions can disrupt sleep. These include diabetes, asthma, chronic obstructive lung disease (COPD), and arthritis. Mental health conditions can also disrupt sleep including anxiety, depression, bipolar disorder, and post-traumatic stress disorder, and insomnia increases the risk of developing or worsening depression.[29-31]

Among the 2.8 million members in the commercial database between the ages of 18 and 64 years old, and with 36 consecutive months of continuous medical and pharmacy health coverage over a four-year study period from January 2019 to December 2022, our study identified an insomnia prevalence of 7.5% and annual incidence of 1.9%. Our study found the prevalence of insomnia to vary by gender and age, as illustrated in the table below, which demonstrates the value in treating the root cause of insomnia.

Insomnia period prevalence by age and gender

Age	Gender		Overall
	Male	Female	
<35	3.8%	6.4%	4.9%
35-44	5.4%	8.7%	6.9%
45-54	6.6%	10.8%	8.7%
55-64	7.1%	11.1%	9.2%
Total:	**5.7%**	**9.5%**	**7.5%**

3. Burden of Impact

In the US, sleep disorder costs are estimated at approximately $100 billion per year, comparable to the cost of diabetes; and likely even greater since many of those suffering from insomnia are undiagnosed.

The majority of insomnia-related spending represents indirect costs such as increased healthcare resource utilization, lost workplace productivity, and increased accident risk. A seminal study[32] found 14.9% of total insomnia-related costs to be associated with days missed from work (i.e., absenteeism) and 75.6% of costs to be attributable to lost workplace productivity (i.e., presenteeism). *Thus, over 90% of insomnia-related costs are borne by plan sponsors.*

Left unmanaged, chronic insomnia can have serious consequences not only for the patient but also for their plan sponsor:

- Excessive daytime fatigue and cognitive impairment, leading to a loss of one's ability to focus, and perform functions that require close attention and memory.
- Co-occurring physical problems, such as cardiovascular disease (CVD) and diabetes, result in higher absenteeism and a higher risk of worker disability, leading to a loss in productivity.
- Co-occurring psychiatric problems, such as depression, that affect behavioral health result in increased stress and irritability, detrimentally impacting work performance.

As shown in the table below, our study found that the cost and utilization of healthcare for members with sleep disorders is more than double that for the average member without a sleep disorder.

Comparison of total cost of care per member per year (PMPY) and Healthcare Resource Utilization amongst employees with sleep disorders

Health Care Resource Utilization	Population		Ratio (Insomnia: No Insomnia)
	Insomnia	No Insomnia	
Sample Size, N	209,568	2,592,274	
Percent of Sample, %	7.5%	92.5%	
Total Cost of Care (per member year)	$11,408	$5,225	2.2:1
IP Admit Rate (per 1000 member years)	64.2	20.8	3.1:1
ER Rate (per 1000 member years)	338.6	173.5	2.0:1
Office Visit Rate (per member year)	7.2	3.6	2.0:1

4. Diagnosis Requires Comprehensive Evaluation

While the AASM guidelines[33] for the diagnosis of insomnia are outlined below, they are too often not accessed by those in need, because of misdiagnosis and mistreatment of insomnia by primary care providers (PCPs) who are unaware, lack appropriate knowledge, or have not received adequate training to correctly diagnose and treat this devasting disorder, resulting in its remaining woefully underdiagnosed.

Insomnia is primarily diagnosed through a comprehensive clinical evaluation that includes a detailed sleep history alongside medical, substance use, and psychiatric assessments. The sleep history should address specific complaints about insomnia, behaviors that occur prior to sleep, sleep-wake patterns, other sleep-related symptoms, and daytime dysfunction.

Diagnostic tools for assessing insomnia may consist of self-reported sleep questionnaires, such as the Insomnia Severity Index (ISI), sleep diaries, psychological screening measures, and feedback from bed partners. At a minimum, the evaluation should include: [i] a general medical and psychiatric questionnaire to identify comorbid conditions, [ii] the Epworth Sleepiness Scale or another tool for assessing sleepiness to uncover other sleep-related disorders, [iii] a two-week sleep diary to track sleep-wake patterns and night-to-night variability, and [iv] physical and mental status examinations.

5. Chronic Insomnia Treatment Guidelines

As with the guidelines for diagnosing insomnia that are outlined above, the AASM guidelines[33,34] listed below for the treatment of chronic insomnia are also *rarely adhered to in real-world practice*.

Cognitive Behavioral Therapy for Insomnia (CBT-I)

CBT-I is considered the first-line therapy for chronic insomnia because it addresses the root causes of sleep disturbances, has minimal side effects, and provides long-lasting improvements in sleep quality compared to prescription medications, which can often have negative side effects and may only provide temporary relief when used for extended periods.

CBT-I consists of a six- to nine-week program that accomplishes the following:

- **Helps identify causes[35]:** CBT-I helps identify the thoughts and behaviors that cause or worsen sleep problems
- **Teaches new habits[35]:** CBT-I helps patients learn new habits that promote good sleep and replace the ones that cause sleep problems
- **Effectuates results[34,36,37]:** CBT-I can be as or more effective than sleep medications, and it has been shown to improve cognitive performance, which is notable, as other current treatments for insomnia are not oriented to improve cognitive symptoms
- **Does not produce side-effects:** CBT-I does not have adverse side effects that can occur with sleep medications
- **Results in long-term improvements[38]:** CBT-I can help maintain sleep improvement for years
- **Offers non-pharmacological approach[39]:** Patients often prefer non-pharmacological approaches like CBT-I because they can improve daytime functioning
- **Offers structured therapy[35]:** CBT-I is a structured therapy that often requires fewer sessions than other types of therapy

While CBT-I is the evidence-based first-line treatment for chronic insomnia, historically, access has been limited due to both a lack of trained clinicians as well as poor geographical distribution of knowledgeable professionals. These professionals are disproportionately located in only a few areas of the country. Among the 659 total providers, 58% reside in only 12 states (CA, NY, PA, IL, MA, TX, FL, OH, MI, MN, WA, and CO), with NY and CA having the most providers at 19%.[7] According to a survey with physicians at university medical centers in the U.S., less than 10% of patients with a likely diagnosis of insomnia are referred for CBT-I.[40] With so few certified providers, telehealth does not provide substantial additional access.

Digital cognitive behavioral therapy for the treatment of insomnia (dCBT-I) has been cleared by the FDA since 2020[8] and will be reimbursable under the CMS payment schedule beginning in 2025.[41]

Prescription Medications

The American Academy of Sleep Medicine (AASM) considers prescription medications not as first-line therapy for insomnia because of the potential for dependence, side effects, and the availability of more effective non-pharmacological treatments like cognitive behavioral therapy (CBT-I), which address the underlying behaviors contributing to insomnia, rather than just providing temporary symptom relief with medication; long-term use of sleep medications can also lead to tolerance and reduced efficacy over time.

While there are several therapeutic classes of prescription medications often used to treat insomnia symptoms, two of these therapeutic classes — benzodiazepines (e.g., Halcion, Dalmane) and Z-drugs (e.g., Ambien, Lunesta) — are considered controlled substances. The opioid crisis has drawn important attention to the effect of misusing opioids and hypnotic medications. Like opioids, some of the medications used for insomnia are also controlled and come with a dependency risk. The effects of these drugs are more pronounced and can be fatal for older patients.[3]

The effects of these drugs for all ages include, but are not limited to:

- **Risk of dependence and addiction:** Many prescription sleep medications, especially benzodiazepines, carry a high risk of dependence and withdrawal symptoms when discontinued abruptly, making them unsuitable for long-term use.
- **Limited effectiveness for chronic insomnia:** While medications might help with initial sleep onset, they may not address the underlying causes of chronic insomnia, leading to relapse once the medication is stopped.
- **Probable side effects:** Sleep medications can cause daytime drowsiness, impaired cognitive function, and other side effects impacting daily life.

The efficacy of CBT-I has been extensively studied and shown to be highly effective in managing chronic insomnia with long-lasting benefits, making it the preferred first-line treatment.

6. Addressing the Broken Care Paradigm

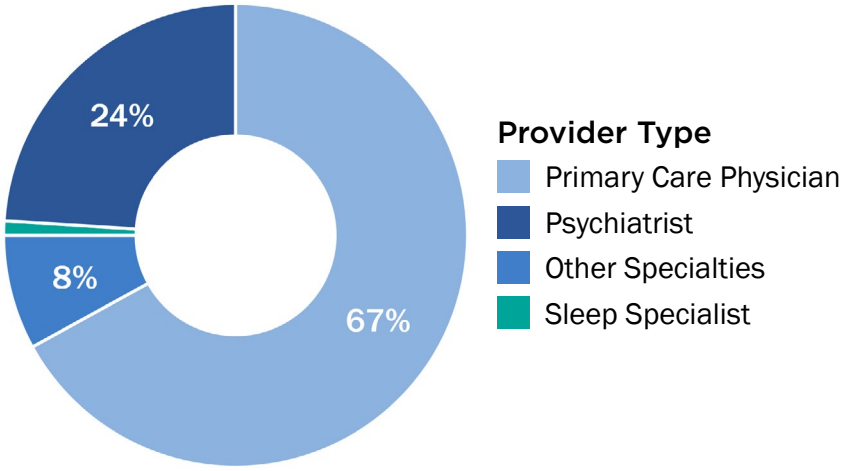
PCPs are typically the first point of contact for care for patients with chronic insomnia. Guidelines state that insomnia disorder should be diagnosed through a thorough clinical evaluation including a sleep history and hygiene, comorbid conditions, psychiatric history, and substance use.[33,37] Lack of knowledge, awareness, and insufficient training have been documented as barriers to correct diagnosis and treatment of chronic insomnia among PCPs.[42]

In addition, despite CBT-I being the first-line treatment recommended by the American Academy of Sleep Medicine (AASM),[4,33,34]American Academy of Family Physicians (AAFP),[43] and American College of Physicians (ACP),[37] there is currently a shortage of trained CBT-I practitioners, which contributes to the undertreatment of chronic insomnia and widespread use of pharmacological interventions such as benzodiazepines and Z-drugs. These highly addictive and controlled medications are often prescribed by PCPs beyond the four week maximum recommendation, and their long-term use carries risks for patients in the form of tolerance, dependence, and misuse. The overwhelming majority

of patients diagnosed and initially treated for insomnia did not visit a sleep specialist; rather, the majority of those diagnosed with insomnia saw a primary care physician or psychiatrist.[6] This gap in care is further exacerbated by the significant shortage of providers who are certified to provide CBT-I (659 in the U.S.),[7] substantially limiting patient access to in-person or telehealth visits.

Most common providers prescribing medications for sleep

Only 1% of patients are prescribed medication by a sleep specialist



Source: Krakow B "Patients With Treatment-Resistant Insomnia Taking Nightly Prescription Medications for Sleep"[6]

7. Inappropriate Use of Prescription Medications

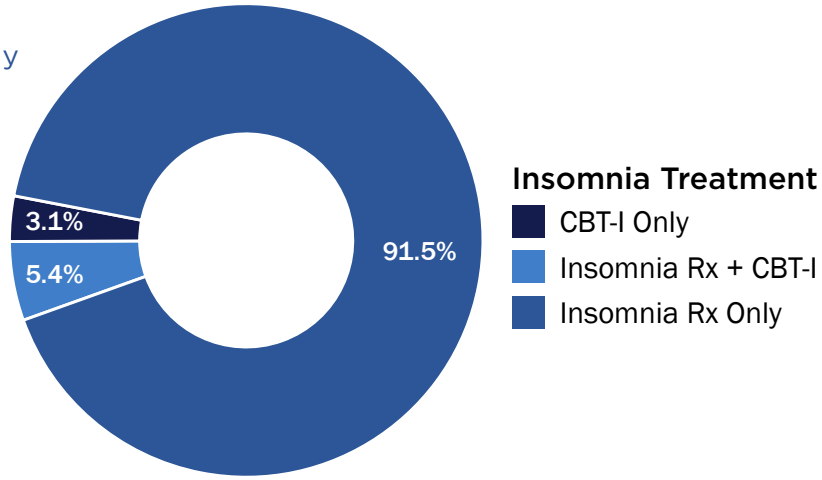
The current care paradigm leads to several gaps in care with regard to the diagnosis and treatment of insomnia, the most significant being [i] under-utilization of the first-line therapy, CBT-I, and [ii] over-prescribing of prescription medications, particularly controlled substances, and excessive duration of use, in many cases substantially beyond dosing guidelines. While chronic insomnia goes both undiagnosed and/or untreated, under-utilization of CBT-I and over-utilization of prescription medications are most notable.

While CBT-I is the first line, evidenced-based treatment for chronic insomnia because it treats the root cause of insomnia and leads to remission, our study found that of the 53.4% of patients who are prescribed treatment, only 8.5% are treated with CBT-I, which addresses the root cause of insomnia.

Members by treatment used for insomnia during three-year study

3.1% of members receive CBT-I Only

96.9% of members receive an Rx



Our study also found that contrary to guidelines, 96.9% are treated with prescription medications, which merely treat the symptoms of insomnia. Two classes of drugs, both controlled substances, were being used by 72.4% of members with insomnia using prescription medication for treatment on average annually.

Annual Rx utilization for the 108K commercial members with an Insomnia Rx

Therapeutic Classification	% of Members with At Least 1 Fill	% of Members Exceeding Guidelines†
Benzodiazepines*	48.3%	64.4%
Z-Drugs*	34.4%	77.5%
Heterocyclic	40.6%	96.6%
DORAs (Dual Orexin Receptor Antagonists)	1.2%	59.1%
Ramelteon (Melatonin Receptor Agonist)	0.3%	45.7%
Any Insomnia Rx	100.0%	82.8%
Any Benzo* or Z-Drug*	**72.4%**	**71.5%**

**Indicates drug is classified as a Controlled Substance.*

†Guidelines regarding use in excess are defined specifically for the treatment of insomnia.

As described in detail earlier in this paper, short- and long-term side effects from these medications are at a minimum, disruptive to quality of life, and more seriously, pose a danger to the patient and those who interact with the patient. It is worth reiterating that a major drawback of benzodiazepines and Z-Drugs is their potential for dependence and addiction. Prolonged use can lead to tolerance, where higher doses are needed for the same effect, increasing the risk of addiction and withdrawal symptoms upon discontinuation.[2-5]

As stated earlier, there is a serious risk that patients will become dependent upon a benzodiazepine if taken for more than four weeks. Our study found that annually on average 64.4% of patients using benzodiazepines and 77.5% of those taking Z-drugs (e.g., Ambien) are using them in excess of recommended duration[44,45] posing serious health and safety risks for member and plan sponsor alike.

8. Overcoming Traditional Barriers

Plan members and plan sponsors can overcome some, but not all, of the traditional barriers to appropriate diagnosis and treatment for chronic insomnia with the advent of FDA-cleared prescription digital therapeutics (PDTs) for the treatment of chronic insomnia (e.g., Somryst).

PDTs are FDA-cleared software programs available on mobile devices such as smartphones, which enable more convenient access to treatment to a wider patient group across the U.S. PDTs must undergo clinical trials, including randomized controlled trials, to demonstrate their safety and effectiveness.

For chronic insomnia specifically, the use of digital CBT-I (dCBT-I) therapy is both less expensive and more accessible for patients than in-person CBT-I therapy and has shown positive and sustained clinical outcomes. It can help overcome barriers to accessing this crucial therapy, promote health equity, and significantly improve absenteeism, presenteeism, and work impairment among patients with chronic insomnia. As noted in the FDA submission,[8] digital CBT-I (dCBT-I; Somryst) showed significant superiority over control across two large randomized controlled trials totaling over 1,400 participants. In both studies, dCBT-I led to substantial reductions in insomnia severity (ISI scores) and increased insomnia remission compared to control. The treatment significantly reduces insomnia severity over time.

At nine weeks, approximately 53% to 63% of participants were deemed treatment responders, meaning their ISI score had decreased by at least seven points or one full severity category. At six months, 56% to 60% were deemed treatment responders, and 59% to 70% at 12 months. Additionally, the rates of insomnia remission were notable, with around 41% to 62% of users achieving remission at nine weeks, 49% to 64% at six months, and 57% to 64% at 12 months. These results highlight Somryst's effectiveness in reducing the severity of insomnia and achieving remission over an extended period.[9] The positive effects were consistent across both trials despite their different populations (general adults with chronic insomnia in Trial 1 and adults with both insomnia and elevated depressive symptoms in Trial 2).

These results are encouraging. They suggest that digital delivery of CBT-I via prescription digital therapeutics (PDTs) could help the millions of people who currently lack access to this effective treatment.

By addressing sleep issues that can impact work performance, all while being accessible and convenient for employees who may hesitate to seek traditional therapy due to stigma or time constraints, digital cognitive behavioral therapy for insomnia (dCBT-I) offers employers several possible benefits including improved employee productivity, reduced absenteeism, better mental health, and a more engaged workforce.

Digital delivery of CBT-I alone cannot overcome two significant barriers to adoption: [i] physician adherence to guidelines, as, of those receiving treatment for insomnia, 91.5% of patients are currently treated with prescription medications and not CBTI, and [ii] duration of use of those prescription medications far exceeds dosing guidelines, especially with regard to controlled substances. Greater member access to dCBT-I, coupled with a comprehensive sleep care management program that includes coordination with the PBMs, will solve the current health equity issue by dissolving the barriers to adoption.

What can plan sponsors and other payors do?

First, as we concluded in our initial white paper, plan sponsors aiming to improve the overall health of individuals suffering from chronic conditions should explore programs aimed at improving identification, adoption, and adherence to sleep therapy.

Second, plan sponsors should ask their PBMs and health plans about their current drug utilization review (DUR) program, specifically with regard to excess dosing and duration of benzodiazepine and Z-drugs used in the treatment of chronic insomnia. In light of recent headlines regarding the opioid crisis demonstrating the public's growing concern around similar health and safety issues — both the over-prescribing and over-utilization of prescription medications when a safer and more effective alternative, in this case an FDA-cleared prescription digital therapeutic for insomnia which is recommended first-line therapy, is available — there is clearly an opportunity for clinical intervention. Our research indicates that it could be advantageous for PBMs and health plans to consider [i] adding dCBT-I to their formulary, [ii] including clinical intervention with physicians on new prescriptions for insomnia medications, and [iii] retrospectively reviewing drug utilization intervention with physicians for the population currently using controlled substances in excess of their recommended duration.

Third, plan sponsors should ask their health plans, behavioral health plans, and chronic condition providers how they are integrating comprehensive sleep care management for both chronic insomnia and sleep apnea within their programs, given that co-morbidities affect a significant portion (approximately 20% to 70%) of their populations.

Conclusion

Current approaches to insomnia management rely heavily on prescription medications that primarily address symptoms rather than the underlying causes of sleep disorders. This over-reliance on controlled substances such as benzodiazepines and Z-drugs has led to widespread misuse and prolonged use far exceeding prescribing guidelines. These medications carry significant short- and long-term risks, including physical dependence, cognitive impairments, and potential addiction, which pose serious health and safety concerns for both individuals and employers.

Despite these challenges, sleep disorders like chronic insomnia and sleep apnea remain underdiagnosed and poorly managed, particularly within the fee-for-service (FFS) care model. This represents a critical gap in addressing the broader needs of polychronic patients, who drive a disproportionate share of healthcare costs. Identifying and treating sleep disorders is foundational to improving health outcomes, enhancing workforce productivity, and achieving substantial healthcare cost savings.

Validated solutions, such as FDA-cleared prescription digital therapeutics for CBT-I like Somryst, offer effective, evidence-based alternatives that reduce insomnia severity and achieve higher remission rates over time. Limited access to trained specialists in CBT-I further highlights the need for a systemic shift toward patient-centered care programs that integrate clinical and behavioral approaches.

Plan sponsors, health plans, and PBMs have a unique opportunity to mitigate these risks by incorporating digital CBT-I into formularies, ensuring provider compliance with evidence-based guidelines, and conducting interventions with both patients and physicians to promote safer, more effective treatment strategies. These actions can significantly reduce dependence on high-risk medications, close care gaps, and foster both immediate and long-term health benefits.

Prioritizing accessible, well-managed sleep care solutions is essential to transforming the current care paradigm. By addressing the root causes of sleep disorders and embracing innovative, evidence-based therapies, we can improve health outcomes, enhance quality of life, and realize substantial economic benefits for individuals, plan sponsors, and the broader healthcare system.

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